Goulburn River Constraints Management Business Case

Report on January 2016 Community Open House Sessions

Introduction

The Victorian Government contracted the Goulburn Broken Catchment Management Authority to lead regional input (community engagement and technical studies) into the development of the Goulburn River Constraints Management Business Case between May 2015 and February 2016. The community engagement covered here was supported by the Murray Darling Basin Authority.

The business case assessed the feasibility of adding environmental water to natural flow events in the Goulburn River to increase the frequency of low level flooding along the lower Goulburn River floodplain, with the aim of improving the health of riverine ecological values. The business case also sought to assess the public and private impacts of the increased flows and the cost to government to mitigate or offset these impacts.

Open house meetings were held in August 2015 to inform and seek feedback from the local community on the rationale and aims of the project.

In January 2016, a second series of open house sessions were held to discuss and seek feedback from the local community, specifically on the target flow rates identified for the final business case, and the costs to mitigate or offset identified impacts. Overall, 246 people attended the sessions (approximately 25% more people than the August 2015 sessions) with some people attending more than one session. The location, date and time of each sessions is outlined in the table below along with the total number of attendees.

Location	Date	No. of sessions	Time of sessions	Total no. of attendees
Murchison	Friday 15th January 2016	2	• 12.00 pm • 3.00 pm	12 2
Yea	Saturday 16th January 2016	2	• 11.00 am • 2.00 pm	25 7
Molesworth	Monday 18th January 2016	3	• 12.00 pm • 3.00 pm • 6.00 pm	21 10 8
Alexandra	Tuesday 19th January 2016	3	• 12.00 pm • 3.00 pm • 6.00 pm	22 8 3
Shepparton	Wednesday 20th January 2016	2	• 12.00 pm • 3.00 pm	11 13
Undera	Wednesday 20th January 2016	1	• 7.00 pm	19
Bunbartha	Thursday 21 January 2016	2	• 12.00 pm • 3.00 pm	19 9
Kotupna	Thursday 21 January 2016	1	• 7.00 pm	29
Seymour	Friday 22nd January 2016	2	• 12.00 pm • 3.00 pm	23 5

The open house sessions were advertised through a direct mail out to landowners along the Goulburn River and along various tributaries (over 1200 letters sent), an email to people involved in the project and those who attended the August 2015 open house sessions, advertisements placed in local newspapers, the Goulburn Broken CMA website, and by word of mouth.

This document summarises the key points raised at open house sessions and the results of the feedback forms.

Key points raised at January open house sessions

The following is a summary by agency staff who attended or ran the sessions.

Target flow rates

- Although the community is relieved the 40,000 ML/day target flow rate in the lower Goulburn and the 20,000 ML/day flow target in the mid-Goulburn are no longer being considered in the business case, there was still significant concern about revised lower flow targets.
- Molesworth landholders were concerned not only over the buffer level (and whether it is adequate), but also at the target flow rate of 10,000 ML/day at Alexandra. This is partially due to uncertainty as to what a 10,000 ML/day flow at Alexandra could turn into by the time it moves downstream to Molesworth, but also with concern regarding Alexandra.
- The duration of flow events have not been defined tightly enough, especially as it is a major driver of the amount of damage that is done.
- There was concern too that decision makers could increase target flow rates in the future and decrease the protection sought through the buffer levels.

Flow footprint mapping

- The community is concerned the flow footprint mapping in the Molesworth and Alexandra regions is not accurate and therefore the number of properties and public land, and the size of area affected by the target flow rates and the buffer levels are considered underestimated.

Mitigation and offset costs

- There is a lot of confusion about attempting to calculate an upfront cost large enough to pay for a recurrent flood event in perpetuity. Some landholders suggested an event based compensation process would be preferred
- People questioned the costing assumptions used to determine land worth – both that an 'agricultural value' was being used, and the level of compensation, and that clean-up costs after a flow event were inaccurate or inappropriate.
- They disputed compensation for the decreased production value of the land, pointing out it didn't take into account the potential decrease in market value for the whole property, nor the effect on other 'lifestyle' components of market value, i.e. aesthetic characteristics and access beyond agricultural purposes.

- The community said there would need to be independent legal and farm advice provided for affected landholders, not just advice at a community reference group level as currently costed in the business case.
- Is the future potential of the land taken into account, not just its current use?
- How is the contribution of the affected land to the whole farm enterprise costed? The impacted land could be integral to the functioning and feasibility of a farm (primary source of water, stock feed, shelter).
- The following costs have not been detailed in the business case:
    - Impacts on Goulburn River landholders from flow interactions with the Murray River.
    - Impacts on tributary landholders (e.g. Broken River and Seven Creeks) from flow interactions with the Goulburn River (also see comment under "Other" heading below).
    - Councils who want some of their public infrastructure assets to be upgraded to maintain access rather than the current costing assumption of reinstatement.
    - If property values decrease it could decrease the rate income to councils.
    - Flow on effects to the economy and community (other businesses in the region) from reduced tourism because of increased flooding.
    - Contribution to Loch Garry operation and maintenance as constraints flows are relying on the structure to be in place and remain in good condition.
    - River bank erosion and avulsion control as a consequence of increased flooding.

Easements

- How would easement acquisitions be negotiated?
- Local community reference groups should provide input into the design and implementation of the easement acquisition process, if it occurred.
- Vulnerable landholders (e.g. the elderly and people with mental health issues) should be considered in the design and implementation of the easement acquisition process.
- There was concern easement acquisitions would not stay voluntary and would become compulsory.
- Affected landholders should be provided with access to independent farm and legal advice at an individual property level.

Other

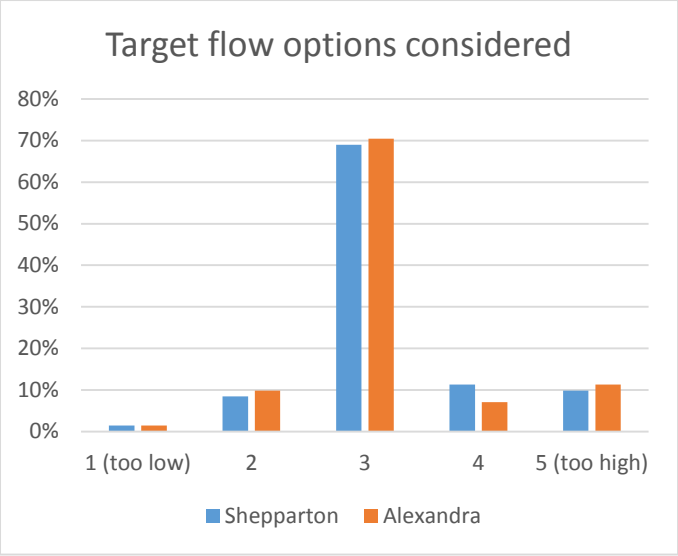
- Exacerbated flood risk (risk of making a follow up flood worse) continues as a key community issue all along the Goulburn River. This relates to uncertainty around how tightly flows can be managed during an event, whether the buffers are of sufficient size, whether the mapping is accurate at a local level, and for the lower Goulburn how much the filling up of the floodplain storage (wetlands) could affect the severity of a follow up flood.
- People in the mid-Goulburn were unhappy that tributary impacts were only recognised as needing further work and were not included in any cost estimates in the business case: work this year showed limited impact on backing up and tributary time to drain which doesn't match with landholder views.
- Unhappy that governments are making decisions without all the information being in place.
- The assumption of predominantly public infrastructure reinstatement rather than upgrade is considered risky by some councillors. View was put that where properties and business could be isolated for seven days or more, infrastructure should be upgraded.
- There was some thought that a real time river level monitoring phone app with advance notification capability would assist affected landholders and communities, however there was concern on any reliance of BoM to provide accurate weather predictions prior to flood events.

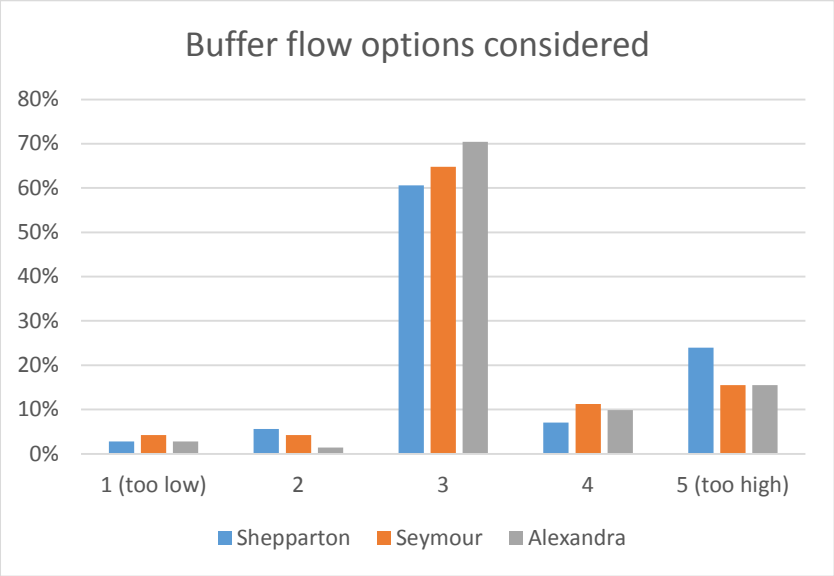
Feedback sheets

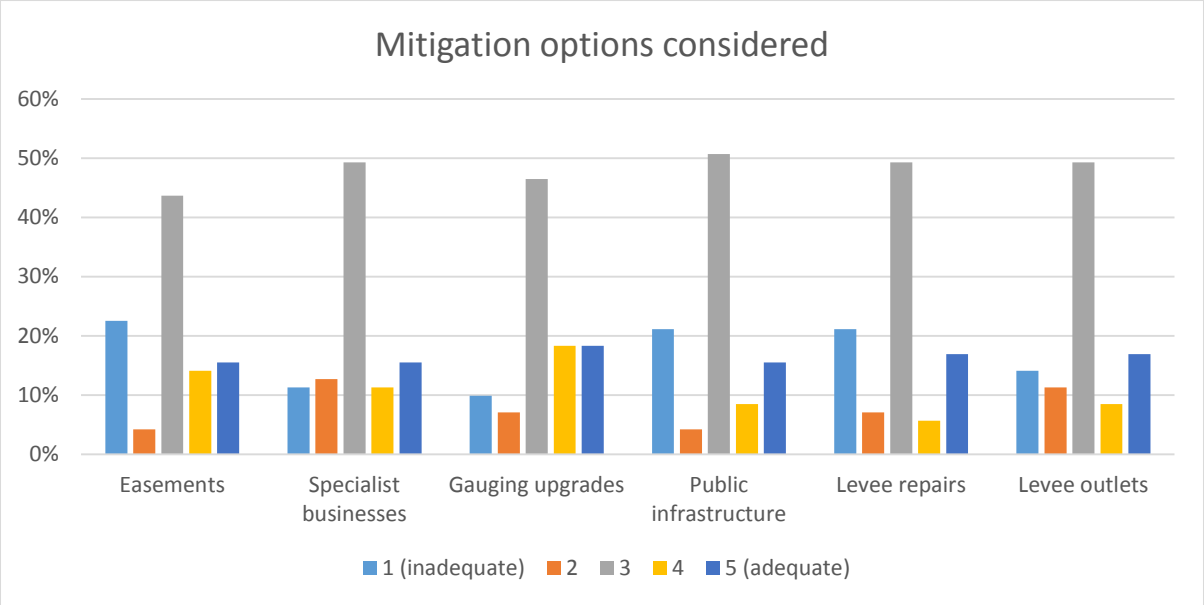
Feedback sheets were made available to session attendees. A total of 71 completed feedback sheets have been received by the GB CMA to date. The feedback sheets asked the following seven questions:

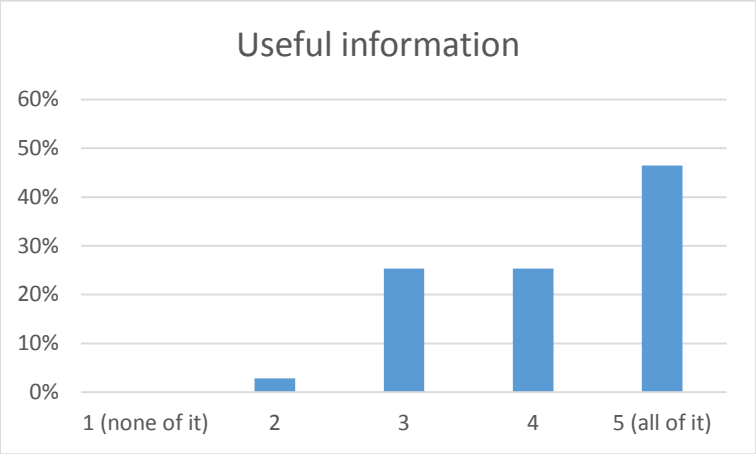
- How did you hear about the event?
- What do you think about the target flow options being considered?
- What do you think about the buffer flow options being considered?
- What do you think about the package of mitigation options being considered?
- Please rate the information provided?
- How satisfied were you with opportunities to ask questions and the answers to your questions?
- Do you have any other comments or feedback?

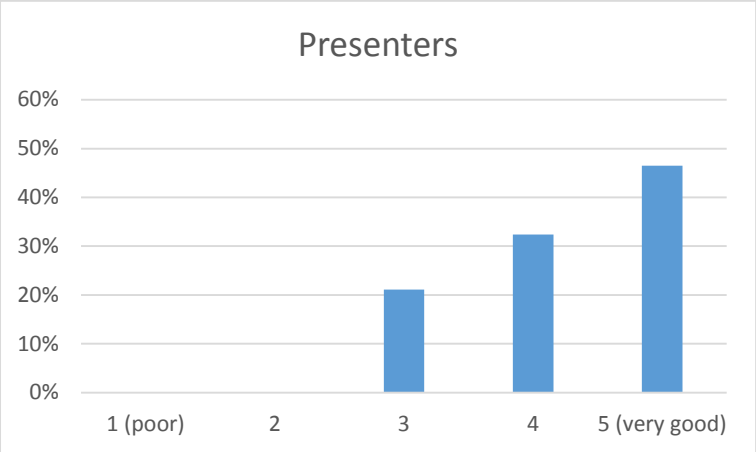
The questions were a combination of multiple choice and free text. A summary of the multiple choice answers received are provided in the graphs below.

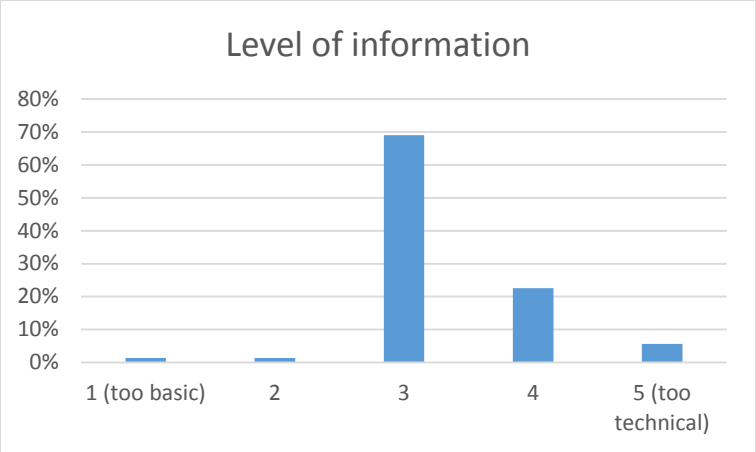

Target flow options considered
80%
70%
60%
50%
40%
30%
20%
10%
0%
1 (too low)
2
3
4
5 (too high)
Shepparton
Alexandra

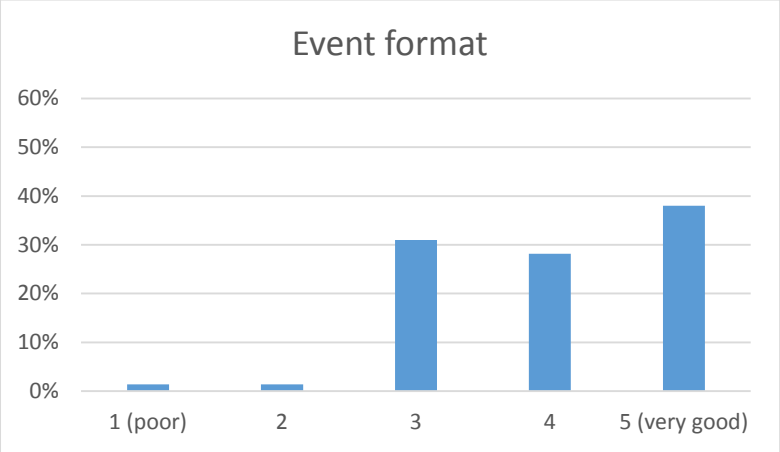

Buffer flow options considered
80%
70%
60%
50%
40%
30%
20%
10%
0%
1 (too low)
2
3
4
5 (too high)
Shepparton
Seymour
Alexandra


Mitigation options considered
60%
50%
40%
30%
20%
10%
0%
Easements
Specialist businesses
Gauging upgrades
Public infrastructure
Levee repairs
Levee outlets
1 (inadequate)
2
3
4
5 (adequate)


Useful information
60%
50%
40%
30%
20%
10%
0%
1 (none of it)
2
3
4
5 (all of it)


Presenters
60%
50%
40%
30%
20%
10%
0%
1 (poor)
2
3
4
5 (very good)


Level of information
80%
70%
60%
50%
40%
30%
20%
10%
0%
1 (too basic)
2
3
4
5 (too technical)


Event format
60%
50%
40%
30%
20%
10%
0%
1 (poor)
2
3
4
5 (very good)

Session summaries

Murchison – 15 January 2016

Murchison Community Centre

Event attendance	**14** (12 first session, 2 second session)
Observations	Summary of content
Key points raised to be included in community feedback on the proposal	-
Questions raised by participants	1. Why are costs for councils coming in relatively low in comparison to specialist businesses? 2. Are the lower Goulburn levees private and public or are you just talking about fixing up the public bit? 3. Did some of these extra costs come about from the feedback from the last round of consultation or work that was already underway? (e.g. the $2.2M of consultation and engagement costs) 4. What's the benefit of higher environmental flows, not just to the environment, but to other users? 5. Has there been any modelling on wetland filling rates and how long they will keep water? 6. What are the water levels you are looking at for Murchison? 7. If it comes down to property level negotiations, would you pay for a levee of just the easement? 8. Who is the biggest opposition to all of this? 9. Have farmers got organised about this? (e.g. Farmers' Federation) 10. Infrastructure as a one-off upfront cost, but what about recurrent costs that happen after each event? 11. Do you need more water to do this outside of your current environmental water holdings? 12. Where to from here? How will feedback from these sorts of meetings be available for people to see? 13. Will the presentations be made available online? 14. Can people ask questions online?
Proportion of questions that were addressed	Nearly all. A few that were difficult to give a clean answer to e.g. the ongoing costs for operation and maintenance of the levees remains an unresolved issue. Capital improvement costs were included in the proposal but not operational and maintenance costs (although these have been identified)
Questions with incomplete answers (remaining areas of uncertainty to document)	• Easement negotiation process • Lower Goulburn levee ongoing maintenance and repair responsibility
Comments made by participants	1. A lot of people seem to forget that they are running businesses on the floodplain. It gets wet sometimes and that's why the land is good. 2. A lot of people talk about how bad 2010 was, but talking to my grandparents, that wasn't even a big flood, more of a rise. People forget what the big floods look like and mix up the flows you are looking at with the big floods. 3. Floods you were showing on the maps, look fine and wouldn't cause too much trouble around here. 4. Mapping accuracy looks about right around my property in the Arcadia region.

Yea – 16 January 2016

Yea RSL Hall, Snodgrass Street

Event attendance	**32** (25 first session, 7 second session)
Observations	Summary of content
Key points raised to be included in community feedback on the proposal	1. Estimates of land inundated and numbers of properties affected are too low. 2. Some of the components of the easement costing methodology are considered significantly underestimated, particularly agricultural land worth. 3. Still believe that tributary backing up in the mid-Goulburn is a significant issue and are concerned that tributary impacts have not been included in the proposal (further research need identified, but not costings) 4. Duration has not been defined tightly enough when it is the major driver of impact. 5. Concerned that governments are making decisions without all the information being available.
Questions raised by participants	1. Will you put the presentations up on the website? 2. What benefits will additional floods get in the lower Goulburn – quantitative not qualitative? 3. Please explain what the cost to damage to farms was? 4. Can you explain in your simulations how long you put down each flood? 5. Have you been there on the river and actually seen what happens when there is a flood? 6. We've been saying that you should stick to 9,500ML/day maximum at Molesworth and Killingworth (like it is now) – the 500 extra you are saying (10,000ML/day at Alexandra) won't make much of a difference so why not leave it at 9,500ML/day? 7. How much impact on landholders is considered acceptable? 8. Are the buffers purely for benefit or are they being used as a basis for compensation? 9. Have you made calculations on what happens when you get water running off the hills as well as water in the river? Where will the water drain to? 10. Are you factoring in any tributary inundation into the proposal? 11. What is the difference between grazing tolerant and grazing vulnerable land and how are they identified on farm? 12. Do the agricultural figures include turf farms? 13. Is the number of properties data about actual farms or about titles? 14. What about higher river flows causing more bank erosion? How has this been included? 15. Do the costings for easements consider how the parcel of land affected actually contributes as part of the whole farm? Not just the change in productivity of the inundated land but the change in productivity of the whole farm it is connected to? 16. Are you just looking at the differential for just the environmental events, or are you looking at the impact of all of the events including natural ones? 17. Are you going to apply the 'event damage assessment' table you showed after each and every event or is this about a one-off payment up front? 18. Who's to say what is natural and what is one of your events? How do people tell? 19. How can you say that our productive capacity will only be impacted for short durations when you are talking of flooding us out 3 times in 10 years? 20. If you spend $1M on a property and someone comes along and floods your property, dropping the property value to $500K, then where is that drop reflected in your costs? 21. What happens when government stuffs it up and you get 5 floods and then another 3 big ones? Why not keep it all below 12,000ML/day and then no-one will get too upset about it unless you drain Eildon? 22. What about flood insurance? How will this affect our insurance premiums? Has this been looked at? 23. How many years into the future will compensation cover? 24. Will this be a compulsory acquisition of easements? 25. Who are basin ministers?

	26. How can we make a contribution to the business case? 27. Has the GBCMA looked at any of the Senate Inquiry submissions? 28. Who is responsible for managing all this if it all goes wrong and turns into an emergency? 29. What about the build-up of river debris in the channel, who is looking at this? 30. Why don't you have a specific target flow for Seymour, only a buffer flow? 31. How long has this concept been around? 32. With respect to drains and levees, the CMA won't maintain them anymore, so why are you proposing building new levees?
Proportion of questions that were addressed	Many, but a number of questions where the issue has been identified but the work hasn't been done yet (e.g. duration, what exactly releases could look like and how they would be managed).
Questions with incomplete answers (remaining uncertainty to document)	• Duration of flooding • Flood risk • Tributary impacts • Costs and flows could all change again when it becomes a farm by farm analysis
Comments made by participants	1. Travel time of 4 days from Eildon to Shepparton seems short. 2. The trouble with the buffers concept is that a lot of properties around here have billabongs, water comes in via the billabongs and when it goes we are left with mud flats, broken bridges and weeds coming up. 3. This could all alter again when it becomes a farm by farm analysis. 4. Another impact that has not been considered is the loss of mature trees falling over due to the high water levels. Takes a long time to clean up a big tree. $40/ha won't go far. 5. $40/ha for clean-up costs is inadequate. 6. This all seems to be an inaccurate desktop study. 7. Flooding will have an impact on re-sale values around here. Capital impact of that loss in market value must be included in your costings. 8. I don't care about time of year, I care about duration. If you go longer than 7 days it will kill my pasture. 9. Seven days of flow is very damaging. 10. Around here the temperature of the cold water being released from Eildon can have a big impact on our river flats – it is very cold. 11. In the last drought Eildon got down to 3%. Environmental flows have dropped Eildon by 25% over the last 6 months. If your environmental flows keep on going then Lake Eildon will run out of water. (noting that this comment came from a person observing normal summer irrigation releases not environmental releases). 12. Drainage is an issue – water sits on the land, it doesn't always drain back to the river. Even if the flooding lasts for a day, in some places it fills up depressions, doesn't drain back to the river and then you have the >7day duration impact on parts of your land – kills pasture. 13. Agricultural productive capacity figures seem to be grossly undervalued. 14. How can we justify all this impact for the benefit of a few trees downstream. 15. You are leaving out major cost components that will affect us 16. This is all rather extraordinary. It's never going to happen! 17. I understand a lot better what this is all about since August. 18. This is a delicate thing, you would need a long time to implement it. 19. It is not just threatening us it is threatening future generations. People aren't going to accept this- we will be very reluctant to lose what our ancestors have gained for us. 20. It's very weird to me. You don't have all the facts but you are putting this up to government to make a decision. 21. Putting more gauging in should have happened first, not all of this desktop stuff. Cart before the horse. 22. I came to the Senator meeting last year and this isn't what we were told last year. 50% of all the complaints about this wouldn't have happened, wouldn't have had all the hassle if folks knew this is what you were looking at. This information at the beginning would have solved most of the concern.

	23. This whole thing will only work if you have all your ducks lined up in a row.

Molesworth – 18 January 2016

Molesworth Hall

Event attendance	**39** (21 first session, 10 second session, 8 third session)
Observations	Summary of content
Key points raised to be included in community feedback on the proposal	1. Maps incorrect (from local feedback), therefore impact incorrect, therefore estimated costs incorrect. 2. Only having a specific target flow for Alexandra and then buffer flows elsewhere in the mid-Goulburn leaves those of us downstream of Alexandra very uncertain as to what the flow is likely to be. Believe that this is an unknown that should go into the business case. 3. People don't want an easement as they don't want flows to change. The amount of compensation is irrelevant as don't want it. 4. You say you are taking feedback from the meetings and including it, well none of the tributary impacts have been included. Made very clear that this to be a whole of Basin Plan, rivers are all part of a system, yet what's going into the business case, nothing going in about the impact on tributaries. Very sore point for me. Cost estimates will blow out when you consider tributaries. 5. Duration is key to how much impact there will be. Got to work out this duration thing properly. 6. Uncertainty and stress will take their toll on farmers – need to be considering mental health and social implications. "I don't want to be living with uncertainty. I'm investing in improving my inheritance, investing everything in it, but uncertainty is awful. It's a mental mind game. With this on the cards, should I even be bothering with what I am doing?"
Questions raised by participants	1. Because of the dry years you have been getting less flow in the lower Goulburn. Isn't this just because we have been having less rain, not how we manage the river? 2. Have you done any estimate of what might have happened if you were releasing water and you had the type of event that killed that person over at Seymour the other week? Flash flooding. How many people would have died? 3. You have a flow target of 25,000 ML/day at Shepparton, but what does that mean up here? What is the flow target? 4. Why do you need a 5 day duration at Shepparton? 5. How did things recover after drought? Adaptation of these trees is that they recover after drought, it's what they are used to dealing with, don't see why you need to add flows to get them through drought periods. 6. Redgums don't need water every 2 years, so why do you need flows so often? 7. Where is the ethical part of this investigation? Where is the human impact factored in for the sake of watering a few trees? 8. Why hasn't the extra gauging been done now? Need this work first. 9. What is the travel time between Eildon and Molesworth? 10. You say that there is still a lot of detailed work to do, so why is the decision being made now before all the information is available? 11. What's wrong with having event by event compensation rather than an upfront payment? 12. When we spoke about this last year, the maps were considered inaccurate. The maps are still not accurate. How can you estimate the associated costs and impacts if the maps are wrong?

	13. Are you saying that councils want payment after every event? 14. Mapping grossly underestimates flooding, how will that blow out the budget? 15. Do infrastructure costs include ongoing maintenance costs? 16. Why doesn't repair and reinstatement apply to farms? 17. How may properties are affected? 18. Why don't you consider storing water down in Waranga Basin closer to where you want to use it? 19. Why wasn't GBCMA at the senate inquiry? 20. If Molesworth in one of the areas with the most severe impacts, why is Molesworth not represented as a flow constraint? 21. Easements over our property will devalue our property significantly. Would you agree that easements have to be forcibly imposed on properties for this to proceed? 22. Can't get 15,000 ML/day at Molesworth – properties significantly affected, so why are you going to push for a buffer flow of 15,000 ML/day? 23. Will information on duration be made public before the decision is made? 24. Can you explain the mapping that was done and the accuracy of the levels? 25. Is it possible to access data about my property? (inundation mapping) 26. Is it correct that in your costings you don't mention erosion? 27. What is the difference between grazing tolerant and grazing vulnerable pastures in your costings? How did GHD define the different land-use categories? 28. Are there any benefits included in the costings? 29. What length of flooding do you consider as damaging to pasture? 30. How long do you calculate forward with the costs? How can you turn the costs of an ongoing impact into an upfront value? 31. If you have an elderly person on a farm that is not in production, would you base the impacts on current use of potential use? 32. What about if the easement negotiation process happens during drought? Would it just be current production (affected by drought) or would you use potential production in the calculations? 33. How does this impact market value of properties? 34. Are you saying that each property affected gets $50,000? 35. How much flow do you need through here to get 25,000ML/day at Shepparton? 36. How can you evaluate the risk for people here when you don't know the flow needed through Molesworth? 37. We and the neighbours think the maps are inaccurate and underestimated at Molesworth. When in the process will mapping be addressed? Will you do all this work before you start the flooding? 38. The costs you talk about are largely about repairs – how is that considered into the future? 39. Are we going to have a better representation of risks for Molesworth before the proposal goes in? When will this happen? 40. How can you complete the business case when you haven't consulted with landholders all the way down the river? 41. This amount you have come to, do you divide over 10 years? 42. Where did you get the definition of land worth? 43. What is the relationship between agricultural land worth and market value in this area? 44. Have all the affected farmers voluntarily signed up for an easement in the Hume to Yarrawonga example you were talking about? 45. What about events that go out of control? Who pays when things go wrong? 46. Is there only going to be compensation once? 47. How can a single amount upfront possibly cover all of the impacts? 48. You say this is for environmental purposes but what about damage from European carp or wombats or water sitting stagnating for over 7 days? 49. Farms have plans over many years. You are not taking into account how the affected area connects to the rest of the farm and the influence on overall farm business? 50. What proportion of water you release from Eildon to you expect to get to Shepparton? 51. How much environmental water does MDBA hold in Eildon?

	52. How long do you have to keep the flow up for? Are you factoring in any balance between duration down there and damage up here? 53. How does this affect the market value of our properties? Will they be devalued? 54. What about river migration and river bank erosion? 55. Is it that you want the water to flush out the Coorong? To send it out to sea? 56. Why is it that the costing buffer changes to 35,000 ML/day at Killingworth, but the Molesworth buffer is at 15,000 ML/day? Why isn't the costing buffer 35,000 ML/day for Molesworth? Why can't Molesworth have a higher flow buffer? 57. Flooding longer than a week, takes a month for the pasture to come back. What about agistment? Have you covered this? 58. How many years of tax papers do you need to see what the productivity of the land is? 59. Our cattle head count is significantly lower than it used to be because of the drought (dropped 60 breeders) – property is not at its full potential. How is this factored in? 60. Is this costing for a 10 year plan? 61. Isn't individual easement negotiation behind closed doors open to abuse? 62. Will compensation be indexed to CPI? 63. We recently had our property re-evaluated for rates purposes. The river flats were valued differently and at a higher rate than the hills. How can you factor this in? How will all of this affect our rates? 64. Lots of properties between 1 and 10 hectares would miss out on the $50,000 per property infrastructure option? 65. Do your costings take into account administrative or legal costs? 66. Are governments going to mandate for compulsory easements? 67. What right do Basin Ministers' have to make a decision that will affect farming in our area? 68. I know this is not set in concrete, but does it mean 3 years in a row, or every three years? How the hell can you plan for the future when it is so uncertain? From a farm point of view it is untenable- not knowing when it is going to be inundated will make the land hard to manage and farm planning impossible. My biggest fear is the timing of three years in 10. 69. Who is responsible to check that trees are safe?
Proportion of questions that were addressed	Fair proportion, but for a significant number of questions the project is not yet at the detailed level and thus answers at an individual landholder level were not possible. Also lacking in details around how water releases from Eildon and their management would work. Concepts only at this stage.
Questions with incomplete answers (remaining uncertainty to document)	Hydrology - Duration, Eildon release strategy, notification of events, size of flows through Molesworth, flood risk, uncertainty in rainfall forecasts. Mapping (hydraulics) – mapping accuracy no yet at an individual property scale. Costing – implementation of easement process, consideration of current versus potential productive use.
Comments made by participants	1. There is a lot of difference between days and weeks. 2. We are trying to change the whole system just because we had one significant period of drought! Ridiculous. 3. In the Federation drought there was almost no water in the river. Droughts happen, they are part of the environment, trees in this landscape have evolved to deal with them. 4. On the hills by us we have redgums, they survive and they never get inundated. Vegetation adapts to what is happening at the time, you don't need to water so often. 5. At the moment Eildon stops releasing when tributaries are running. You are suggesting piggybacking when the tributaries are flowing. This is risky when they normally cut back flows. 6. BOM can't forecast rainfall events 2 days in advance never mind flow. 7. With easements, what you really mean is you need to pay to transfer the risk to us. One off payment to transfer the risk to landholders to live with it for evermore. Well we don't want the risk.

	8. Inundation maps you are showing don't have any tributary activity, but if you are talking about a real event, the tributaries would be active too. 9. Flooding has longer term impacts that need to be addressed – damage to roads 2 years on, or effects on tourism because flood events create the impression that the area gets flooded a lot. 10. A lot of the land that will be inundated will destroy the farms around here. $30million is not enough. 11. No ethics in this. Not including the impact on communities. 12. Would suggest that your mapping of Molesworth is very much incorrect – you need to get out onto properties. 13. It seems to me that this is about trees, health of the river. You are going the wrong way about it by flooding. The real problem is carp. They will explode with this. The more you flood, the more they breed. They will strip the river. a) get rid of all the carp, b) draw warmer water from the top 2-3m of Eildon, and c) put willow trees back in to create the food chain. 14. You need 35,000 ML/day at Seymour to get the flow you want. 15. 10,000 ML/day at Alexandra you won't get fence damage, but at 15,000 ML/day you will. 16. This is risking people's lives. Flows come up so quick around here. 17. Weeds coming from upstream area a big problem (phalaris) 18. This concept of unusual prolonged flooding events would affect farm planning every year. 19. My problem with the easement calculation is that a small area of floodplain supports a much larger area of less productive hill country. Terribly important interaction. 20. Where I see a problem – 3 times in 10 years with these sorts of flows, but the same country could also go under water naturally in other years. It will become of no-value if it keeps going under water. 21. I find the estimates of hectares affected and numbers of properties to be very low. 22. Don't see how you can separate market value and agricultural land value. Doesn't make sense. 23. We are going to have an issue with vulnerable people and the negotiation process – who is going to look after them? Don't want someone rocking up in suits they've never heard about before. Need a safety net, local involvement and a process for how people are approached. 24. The dollars you have come up with are minimal amounts for what we see as major impacts on our properties. 25. Land-locking will be a real issue for me, leaving water behind on my land that won't drain away. 26. Risk of break away, channel taking a new course. 27. Really need to add more information about duration. The most important thing. Floods up and down quickly naturally around here – one and off the property within 2 days. But with this uncertain piggybacking, duration is very unclear and if the water stays longer than 7 days, the crop dies and have to pay for agistment. 28. 3rd week of August most people lock up for hay and silage. Agree that the later you go, the more damaging the flow is. 29. If there are 7 floods in 10 years, we would have to buy hay in. Local demand + supply + transportation + stock movement pressure – can't measure the costs, demand will drive prices much higher than your estimates. Males me very nervous. Going from $140/bale to $200/bale eats into your profitability. 30. Several vulnerable places where the Goulburn could change course – Walnut island near Thornton, Cathkin cemetery area. 31. Seasonal breakdown is wrong. We lockdown paddocks 2nd week of August and harvest in November. July and August we are busy marking calves and moving cattle. 32. Natural floods can rise an inch an hour or as in 1991, a foot an hour. 33. Put in more dams, that will solve all the problems. 34. Think that inundation impacts are much more than your definition – not an isolated incident on the farm, has repercussions for years afterwards. Cash flow, total farm management, social impacts, OH&S, mental health. All these social impacts aren't covered in your work.

	35. Sale values recently as much as $7,800/acre, way above your $5,000/hectare. 36. Recent sales at Alexandra of $10,000/acre with no improvements. The values you are using are nowhere near the value properties have been going for. 37. Some elderly residents have no gross margin income, don't have people to protect them or look after them. I don't understand how you can use a methodology that only fits such a small number of landholders. 38. You are not talking about large compensation amounts for people to take easements up. 39. Molesworth is significantly under-represented in terms of mapping accuracy. One of the most vulnerable areas for the kind of flows you are talking about but details about the risks and impacts to our lives and businesses are not available. You've put a flow threshold to keep it largely in-channel up to Alexandra, so why not Molesworth? 40. Need to consider mental health implications. Stress and suicide. Extra pressure on farms. 41. Costs are significantly underestimated. 42. My issue is that with more trees coming down, could block bridges or change the course of the Goulburn River. 43. Billabongs and depressions further up on the floodplain are connected to the river. Their levels go up when the river goes up. E.g. Scrubby Creek Road and Whanregarwen Road.

Alexandra – 19 January 2016

Murrindindi Shire Council, Alexandra

Event attendance	**33** (22 first session, 8 second session, 3 third session)
Observations	Summary of content
Key points raised to be included in community feedback on the proposal	1. Community wanted Molesworth to be noted as an unknown with not enough certainty around flow or level of impact – no target flow for Molesworth, mapping considered inaccurate at the property level and buffer considered too small. 2. Belief that the level of private landholder impact at Molesworth has been under-represented. 3.
Questions raised by participants	1. When they're irrigating out of Eildon, what's the highest number they go to at the moment? (flow rate) 2. How can B.O.M. work out flow when they can't even predict rainfall? How are they going to get it right? 3. Have you changed the maps since last August when a lot of people thought it wasn't very accurate? 4. What about tributary flow interactions changing the flow footprint maps you are basing things on? 5. Can you explain the conclusions on the mapping? – no-one has been out to see me to ask me if I think it's right or wrong. 6. Did the mapping go back and check against the 1993 flood when there was a big flood – the whole district was flooded. 7. If we have a high tributary flows, I'm worried about high flows in the Goulburn stopping tributary flows draining away. Have you looked at flow interactions? 8. Why aren't you looking elsewhere? What about the Darling? 9. What is the risk of blackwater from this? 10. Have you included an allowance for increased bank erosion? 11. What benefit are you going to get from watering trees? Just going to create a fire hazard. 12. What is the fall of the Goulburn from Eildon to Shepparton? 13. On the flows targeting 10,000 ML/day, are people pushing for the number to go higher? 14. How much water do you need to add from Eildon to get the water you want at Shepparton? What about losses from wetting up the ground on the way through? 15. Proposition is unprofitable. Why on earth would you water trees? 16. Say you put your flows down, debris takes out one of my fences, the cattle get out onto the road, and someone hits them with their car and dies. Who is liable, the landholder or you? 17. How can you have a finite cost figure when you have ongoing events, 3 in 10? 18. Have you had any legal advice about putting water on people's land and what is likely to happen? 19. What impact is this going to have on dairy? Can't go about moving and agisting dairy herds. 20. Just because properties have a particular land use at the moment, doesn't mean that there isn't the potential for a different or higher production value in the future. Will production potential be taken into account or just current use? 21. Why aren't you working on land value, not production value? Up here it is $25,000 an acre for Rubicon/Acheron river flats. 22. How will this affect out rates if you change the production value of our properties? From recent rate notices we have received, the river flats are rated separately and are rated at their potential, not their actual use by valuers independent from council. 23. Where is your independent land valuer? Who were they? 24. 114 properties affected up here for $3M, doesn't seem like much money is on the table. Can you clarify the formula you used to come up with this cost? 25. If easement negotiation goes ahead, will special circumstances be taken into account, both with how the land is used and how you deal with people? Drought, pensioners, financial position, mental health all need to be taken into account.

	26. What about interrupted access? I get stuck when the Rubicon comes up and can't get out. 27. Has impacts on long-term farm and business planning been included in the costing models? Farms operate over 5-10 year planning scales. 28. How much money has GBCMA received for the work so far? Are you an unbiased reporter for this work? How much have you put in the budget for GBCMA to do the work in the next phase? Are you really independent? 29. Are you going to be flooding in an extremely dry year like this year? 30. If you get a real dry year are you going to start pulling water out of Eildon? 31. Do you need to know if it's going to be a dry year in advance? 32. What and who is going to miss out if water is leaving Eildon or not going into Waranga Basin? 33. Does this have any effect on the end of season level in Eildon? 34. Why has the river been up and down so much this irrigation season? 35. What happens when they use the pipeline to Melbourne? Who gets cut back? 36. Farm management and legal advice. Is that when people get into trouble or is this prior to negotiation starts? How would it work? What about dealing with elderly and vulnerable people? Need a support system with a local base. 37. How have you estimated legal advice? From the numbers you have, $32,000 isn't going to go far across over 100 landholders. Way underestimated. 38. I have a fire app on my phone that works really well, what about having a water app? Real time water levels and advanced warning so we can prepare. 39. What exactly do you mean by a target flow and a buffer flow? 40. What is the level of confidence in the mapping versus what people have experienced living on the land? 41. Will there be a cost to council of property values reduce? – potential for a loss of rate income to council. 42. What about a decrease in tourism in the area due to increased flooding? There will be flow on effect to other businesses in the community. Not just the businesses directly affected, but the flow on effects to communities and the shire. More flooding, less visitors. 43. Does it get to a point where the cost/benefit ratio says don't proceed? Is there an alternative proposition? 44. If the decision is to keep going, over the next 3 years of detailed work will there be stop/go points built in? 45. Why is it a one-off cost, not a per event cost? 46. Does compensation set-up like this happen already elsewhere? Where else have been easements been used for flooding? 47. Have you costed any productivity benefits in the easement model? 48. Presume these would be floods with warning, not floods without? 49. If someone has significant infrastructure, then presume you won't be using averages but take what's actually on the property into account? 50. How is the potential productivity of the land taken into account? Not just current use. Quite a bit of this area used to be dairy and horticulture. It could be again, especially under climate change when it is next to a secure water supply. 51. What if your flows bring down a whole lot of debris that takes out a bridge? Where is the costing for this? Additional event damage contingency? 52. There was a rumour going around here that you only released your environmental water this year because you were going to be charged for storing it. Is this true? 53. Why are you releasing water in a drought? 54. What about river bank erosion?
Proportion of questions that were addressed	Most, but quite a few partial (see below)

Questions with incomplete answers (remaining uncertainty to document)	• Flood risk • Flow management in real time • Mapping accuracy down to a property level • Flow interactions between tributaries and mainstem • Whether an allowance for control of riverbank erosion had been included • How or whether potential productivity of the land will be taken into account
Comments made by participants	1. I don't believe you've got any idea of where 15,000 ML/day goes 2. $140M seems like an awful lot of money for the type of outcome you are getting. 3. I've never seen a flood that left any benefit for us. 4. You must be growing the wrong sort of trees down there. We have redgums up on the hills around here and they don't need to get flooded. 5. Long releases from Eildon are what will really hurt us around here. 6. A lot of our fences are boundary fences, and these are restricted by roads. It's not like we can realign our fences to put them at a good angle to floodwaters – there are limits with what we can do. 7. A one-off payment at the compensation levels you are talking about is absolute rubbish. Talking a pipe dream you people. 8. Flogging a dead horse with this. 9. Won't find the values you put up for agricultural production around here, Alice Springs maybe. Significantly underestimated. 10. I'd sooner see a flood in the spring than in summer. 11. Flow buffer at Molesworth doesn't seem big enough for all the uncertainty you have. You only seem to be offering minor compensation suggesting that the impact is low. But we don't think that the mapping at Molesworth is correct and the buffer at Molesworth isn't large enough, and there won't be any improvements until the next phase. The level of private landholder impact at Molesworth has been under-represented. 12. What you have here is all these hypotheticals. Garbage. You are trying to hoodwink us. Take 6 months and do the job properly. 13. Hypotheticals the whole way through! 14. An easement is forever. Geoff and Janet may be nice, but when they start sending out 12 year olds with degrees, who knows how this will all pan out. 15. Silly putting water down to water trees. Priority should be to go to farmers to grow food. 16. River up here is better now than it was 50 years ago – much better without the floods. 17. Two separate people checked mapping of their properties around Alexandra (Maroondah Highway and Whanregarwen Road) – thought it looked about right. 18. The big plus of 2010 was that we had the best crop of hay in December. It was a really good outcome. 19. Had to replace 3 lines of fencing in the 2010 floods, but the biggest loss was all the mature trees that were lost. 20. Even flows less than 7 days duration can have significant impacts if they don't drain off the pasture. Can get stuck in depressions and doesn't drain back off. Our so called river flats aren't flat – some bits don't drain out. 21. 10,000ML/day at Alexandra seems like a much more sensible proposition and much more feasible. 22. No matter what line you take, the line is very fine – going to do a lot of damage. Got to look at what has happened over the years with farming – got to balance the environment with food production. 23. Not enough attention is given to local people about seeking their input about how water is stored and released. I am a mad keen fisherman and I'm concerned about just how low the winter flows are and how variable they are – they drop so quickly, stranding the trout eggs. 24. One person – taking out the willows is a big problem. It's increasing erosion. Other person – taking out willows is a good thing, better to have native trees.

Shepparton – 20 January 2016

Parklake Hotel, Shepparton

Event attendance	**24** (11 first session, 13 second session)
Observations	Summary of content
Key points raised to be included in community feedback on the proposal	1. Need assurances on confidence in being able to manage these higher flows, especially when releases would be made on uncertain rainfall forecasts. Flood risk concerns.
Questions raised by participants	1. Will the Nagambie caravan park be affected? 2. Will the residents still own the waters under the constitution if this goes ahead? 3. Will compensation to farmers increase with CPI? What safeguards are there for future events? 4. How are you defining the lower Goulburn? 5. How does this affect someone accessing the river? Use of the river? 6. Have you taken into account the flows that come out of Seven Creeks? What about the interaction between Seven Creeks and the Goulburn? 7. What modelling have you done on late season or unseasonal flooding events? What impact would this have as I see this as an enormous risk? 8. Do these models take into account recent urban development? Is this done in conjunction with determining urban growth boundaries? 9. What happens if you have high rainfall on top – unexpected – what does this do to the risk of a big flood? 10. If you do get a big flood and you were putting water down during the event, will you be able to determine how much you were adding? Can you quantify your contribution? 11. Is it feasible to have a dam lower down to store water in order to give you the same kind of effect? 12. Is it feasible to put pumps on wetlands instead? 13. How do you standardise values for crops when you have such diverse values for different crop types? 14. Are there benefits downstream of the Goulburn? In the Murray? 15. Is the Broken River gauging and monitoring good enough for this? 16. Can you provide more comment on how not diverting to Waranga Basin won't have an impact on other entitlement holders? 17. What if Waranga Basin is full? When it is full you can't add water by not harvesting and you can't pull water out of the river if things go wrong? 18. Where are the other constraint areas? 19. How did you cost easements? Looks like it needs a lot more work. 20. Capacity of the channel and bank slumps. With all this river bank erosion are you decreasing the channel capacity of the Goulburn River? 21. Do the compensation estimates account for the change in the value of the land if this goes ahead? 22. What has the general farmer response been to this? 23. Are you looking at compulsory acquisition of easements? 24. What about voluntary land buybacks? 25. What about pumps to get water into wetlands? What about pipes and valves? 26. Why do you need to increase the frequency of flooding? 27. Is this all a short-term response to the drought we went through? 28. Have you looked at the rainfall records back to the 1860s? Long term behaviour of the river back then, has it been looked at? 29. Why are you trying to get higher flows in an environment that is characterised by drought? (Audience comment in response – because we are 'droughting' it out of existence with irrigation flows) 30. You are releasing out of storage. Isn't there a big difference in the characteristics of water running down a catchment and releasing it out of storage (temperature, nutrients, salinity, etc)?

	31. How confident are you in being able to manage these flows with Bureau of Meteorology forecasting accuracy? 32. How much water does the Victorian environmental water holder have? What about the Commonwealth water holder? 33. Do environmental water holders get carryover? 34. Are environmental water holders using all their water allocations every year? 35. What's the earliest that this could be implemented? What happens for getting water into wetlands between now and then? 36. Is the story of the Goulburn River very different to the Murray? Irrigation flows pounding out of storage in summer and no winter/spring flows anymore?
Proportion of questions that were addressed	Most, but many struggle with how an upfront cost can be calculated when these events will keep happening into the future.
Questions with incomplete answers (remaining uncertainty to document)	• Flow interactions • Flood risk • How well you can manage and control flow events of these sizes
Comments made by participants	1. The sky doesn't appear to be falling in. I've a learnt a lot thank you. It seems like there is a process here and I'll go back to Strathbogie council with this. 2. $139M is talking about wiping out farmland and doing this for forever. 3. We've changed a lot of things in Shepparton. No-one knows where the water is going to go anymore. Anything that changes the amount of water and damage it has on Shepparton is a worry. 4. Environmental water is not being put to good use at the moment. Would be better to get it over-bank which you are not doing now. Just when it gets interesting they back the flows down again and it doesn't reach the wetlands. I'm out the back of Toolamba and we want the water up higher. 5. Someone who lives near Raftery Rd and Broken River – this would be good for the bushland and for our place. Just wanted to make sure fencing was considered even for properties not in 'productive use'. Notice is also very important so that there is time to move pumps. 6. Someone at Kialla West near Seven Creeks who came to August meetings – still think this would be a good thing. Good for the trees and what we are trying to do with replanting on our block. Have planted lots of trees down there. Guess some will make it, some won't. The big thing for us is notice so we have time to move the house pump and prepare.

Undera – 20 January 2016

Undera Recreation Reserve

Event attendance	**19** (19 first session)
Observations	Summary of content
Key points raised to be included in community feedback on the proposal	1. If government compensates to 40,000ML/day but is targeting flows of 25,000-30,000 ML/day, then safeguards (checks and measures, rules) are needed so decision makers don't push the envelope in the future and try to creep higher. 2. Exacerbated flood risk (risk of making a follow up flood worse) 3. Interested in levee upgrade to full level of 1 in 5 year flood protection, not just to 40,000ML/day.
Questions raised by participants	1. Did you drop the 40,000ML/day because of community feedback about the anxiety it was causing or because of how hard it was to reach? 2. In dry years will the environment get preference over us with its water orders? 3. Is the buffer to the height of the levees or the condition of the levees? 4. From your inundation maps, what level flows are you assuming are happening in the Murray at the same time? 5. The number of properties doesn't seem high enough. Is it including the small hobby farmers? 6. Is this about inundation that stays inside the levee bank? 7. How many years into the future does the money for public infrastructure go for? 8. Do you take ownership of the levees from then on? 9. Wouldn't it be better to add in the $10M to put automatic doors onto Loch Garry? Isn't that pretty cheap for the benefit it will give us in larger floods and it will only cost more later? Why can't you spend that extra bit to speed up how quickly the bars at Loch Garry get pulled? 10. If government compensates up to 40,000 ML/day as a buffer, what's to stop them creeping up on it later? Will they stay at 25,000-30,000ML/day or will flows go higher? 11. What modelling has been done to examine any potential for a decrease in land value? 12. For private land, you are talking about an easement up-front, how is that adequate to address the impact in perpetuity? 13. Would easements show up in a section 32? 14. We have a property inside the levee bank, but we don't do much with it and it isn't really in production. How do you work out the change in value for inundating this sort of land? Very little compensation? 15. How do you fix a levee up to 40,000ML/day when it might actually be capable of holding 70,000-80,000 ML/day? How can you fix the bottom of a levee without fixing the top? 16. Soil quality in the area near the levees is poor. Did you cost having to cart in large quantities of soil from a long distance away into the costings? Can't see how you can get good clay for the levees from this area. 17. When talking about land inundation, I have to shut pipes to keep your water coming back up my drains, but then I can get inundation problems if water is coming down the drain. Whose problem is it? Have you factored in outlets/drains into the levee system in your work? 18. Is someone going to monitor all of this? 19. How does the fire risk side of things go? 20. What is your perceived probability of the worst case scenario actually happening? 21. The bit that worries me – flood comes down, filling up the lagoons, making the bush all wet and green in July/Aug. Then in October, cop a big rain, then have a massive flood as the catchment is wet and the floodplain storage is all filled up. Flood will come quick and catch people out – what is the contribution of your earlier watering to impacts from the bigger flood? What is the risk here? 22. Why wasn't Mokoan used as a flood mitigation storage rather than decommissioned?

	23. Are you saying that if you had 2 or 3 watering events in 10 years you wouldn't add any managed events? 24. Would you add water in a dry year like this? 25. How much did fish spawning improve when you put down your environmental flows? 26. How many ML/day were you putting down to get fish spawning? 27. How much flow do you need to get out of the river and into the wetlands? 28. Does your costing include infrastructure in the river such as pumps? 29. What's the process for communicating with landholders over the next 8 years if this goes ahead? 30. What have other meetings along the river been like? 31. Have other parliamentary representatives been attending? 32. Will the works and infrastructure you are suggestion change where water flows? 33. Have you thought about giving water to farmers to water farm wetlands and swamps? Can we get some water to water our environments near but not on the river?
Proportion of questions that were addressed	Most
Questions with incomplete answers (remaining uncertainty to document)	• who will be responsible for ongoing levee management • flood risk • impact on other infrastructure that connects to the river through the levees such as drainage outlets
Comments made by participants	1. This year you sold water (referring to recent CEWH temporary trade). Some of it went to South Australia. Profiteering. If you didn't use it, you didn't need it, if you didn't need it, you shouldn't have it. Give it back to farmers. 2. The more high flows you send down, the more distance you need the levees away from the outside bends of rivers. 3. I have heard that there are places where the trees are dying from being over-watered. Floods don't happen every 2 years either. 4. Has been some recent tree plantings on the downstream ends of the underpasses of the causeway at Shepparton. 5. We've experienced significant flooding in this area. This sounds like we are very dependent on mankind getting this right. In 1993 there was a huge flooding impact when the Loch Garry bars were pulled too slowly. Need to be confident of getting these kind of events right. 6. We don't notice the 30,000 ML/day much around here. Not noticeable impacts.

Bunbartha– 21 January 2016

Bunbartha Community Centre

Event attendance	**28** (19 first session, 9 second session)
Observations	Summary of content
Key points raised to be included in community feedback on the proposal	1. Levee ongoing maintenance and repair and who repairs damage after large floods 2. Public infrastructure – some upgrade, not just reinstatement 3. Potential for upgrade of Loch Garry structure? 4. Flood risk 5. Levee repair to the full level of flood protection, not just 40,000 ML/day
Questions raised by participants	1. Are these costs after each and every event? 2. Matter of clarity about the 40,000ML/day buffer. The previous discussions of running at 40,000ML/day, has that been put aside? Too costly? Or the negative feedback from community? 3. Can you explain the difference between 25,000 and 30,000ML/day in all this? 4. Isn't it deceptive calling it 25,000 ML/day when the peak flow is 30,000ML/day? 5. You can fill Loch Garry with putting water through channels, so why do you need the river higher? 6. Can't you water wetlands with capital works? Dig down to lower the level for when they start filling, put in pipes, and have valves to restrict the water leaving? 7. Lots of box trees around here, why do you want to water these? 8. How are you going to get in to pull bars at Loch Garry if there is water up against it? 9. Presume at the flow levels you are talking about that not many properties that will get cut-off? (access) 10. Where is all the dirt for the levees coming from? How is this going to affect the price? Soil needs to be tested before it goes in to repair levees. 11. A lot of the costs in all of this would be incurred after every event. I understand some things like bridges can be fixed as a one-off cost to take out the issue. However others happen every time there is a flood. How does Moira Shire feel about taking a one-off payment for all this? Incurring costs every time is not a one-off, will affect ratepayers down the track. 12. Where are we with ownership of these levee banks? This is a big sticking point. So many vested interests. 13. Where is the money coming from to do this? Haven't got the roads and bridges we need here. Be mad to decide on this ahead of other good infrastructure projects. 14. How does the government feel about taking on levee banks? 15. How much money is there available for all of this? What is the likelihood of this getting up? 16. Has there been some sort of cost/benefit analysis? How do they determine what is good value for money? 17. If a natural flood comes down, who will repair the levees after they are damaged? Previously we were told no-one would come and touch them. 18. There was an unpredicted rainfall event recently in Seymour and someone drowned. How does this impact all this? 19. In terms of Waranga Basin, would Goulburn Murray Water need to change their operation of the storage to keep more airspace during your events? (*if need to harvest water out of the river as a risk mitigation measure)* 20. Loch Garry was condemned 3-4 years ago, yet you are now saying it is structurally okay? 21. The bank between Loch Garry and the river is in a real mess. Who is going to fix it? 22. You say flows are not going to get up high enough to the Loch Garry trigger point, but what happens if water goes higher than 40,000 ML/day and it is triggered? 23. What about bank slips and river bank erosion? How is this being considered? 24. How much water is in Eildon for the environment? 25. How can you justify putting water down the river in a drought?

	26. Have you got a figure for how much water you need to go from 15,000ML/day in the river to 25-30,000 ML/day? How much water would it take? 27. Do you have a minimum that you have to have in the river to do this? 28. What happens with the levees that hold more than 40,000ML/day? How are you fixing these or what is to be done with these? 29. Levees has to be all at the same height, same level of protection for it to work. Can't see how you can just fix to 40,000ML/day? Need to fix to its full flood protection? 30. Who owns the levee? Whose levee is it that the government wants to change? 31. You are saying you won't be upgrading Loch Garry as you are not opening it, but would you pay for some of its operation and maintenance costs given you are relying on it being there and staying in good condition? 32. Next big flood comes along, blows a hole in all the fix-up you've done, who comes along and pays for it? 33. Total cost over what length of period? How can you calculate a single total cost for a recurrent event? 34. Is the total a per annum cost? What horizon are you talking? How many years? 35. You are saying that you've identified levee operation and maintenance costs but not who. Will the 'someone' be identified and resolved before June 2016? 36. How do you convert damage from each of these events into an up-front cost? What if you don't put in enough up front, and what happens when you run out of money? 37. What percentage of easements are on private land? Easements are out of the question to me, you buy it. I can't see governments working with an easement on private land.
Proportion of questions that were addressed	Fair proportion, although many were about further work that is needed
Questions with incomplete answers (remaining uncertainty to document)	• reinstating the full flood protection of the lower Goulburn levees, not just to 40,000 ML/day • ongoing responsibility for levee maintenance and repair • flood risk (during the event and follow up events) • potential for increased riverbank erosion
Comments made by participants	1. Glad the 40,000ML/day flow has gone out the window. 2. Public infrastructure costs, only mention 1 bridge and $22M across the whole Goulburn for reinstatement. Reinstatement is a risky assumption. For council, flows of seven days that cuts access off for residents and businesses is not acceptable. Need upgrade not reinstatement costs to make sure access is maintained. 3. If a government agency does take on the levees, if we get to the point where there is a potential breach, has to be fixed at once, can't wait for a government agency to get organised. 4. If you go ahead spend money and fix up the levees, at some point a massive flood is going to come down the Goulburn and blow it all to smithereens – it will all be for nothing. 5. Even assuming all this works perfectly, there is no fire plan. Could be a total catastrophe. National park with a NW wind. Huge issue. 6. Should you be watering Loch Garry when there is no parks maintenance? Can't even get Moira Shire to grade the road in. Fire risk. 7. The deal you have demonstrated today is a lot more than the 30-50 million it was before. 8. An adequate buffer is essential for all this uncertainty. Not much faith in Bureau of Meteorology forecasts. Failsafe is important. 9. An upgrade to Loch Garry could be one of the future negotiation points in this district. It's something we want. 10. Not so sure about the advice to leave trees in the levees. Roots spread through and water has an uncanny knack of following along root lines and opening them up to make cracks. Trees also suck a lot of moisture out of the levee core in dry times making cracks. Really weakens the levee.

	11. Would get strong opposition around here from leaving the trees in the levee – should remove. 12. If you are fixing up the levees, need to make sure there is an access track along the outside that is also clear of trees. 13. It is the duration of time that water is up against the levees that weakens them. Duration is critical. 14. The levee system that was built had an original design height, should return it to the original design height. 15. Value of the land. Businesses have to manage risk, but over a ten year period you are going to be sending water down putting us at increased risk of flood, this will de-value our land. 16. Feel that insufficient money has been set aside to address the full levee issue, and whether dollars would be better spent on pumping water to wetlands, or indeed spent on other priorities rather than getting water to wetlands and trees at all. 17. Running flows at 25-30,000ML/day, 40,000ML/day is only one rainfall event away. 18. Taking a man-made event is very different from copping a natural flood. 19. Really not thrilled with the cost. No cost phasing, all front loaded. Some elements are one-off, others are ongoing. Can't see how you can calculate a single forward looking cost when some costs are event by event and you are talking a permanent shift in how the river runs.

Kotupna – 21 January 2016

Kotupna Country Fire Authority Shed

Event attendance	**29** (29 first session)
Observations	Summary of content
Key points raised to be included in community feedback on the proposal	1. Flood risk 2. Levees and full flood protection (rather than just constraints intersection at a lower flow level) 3. Underestimating public infrastructure costs. Need for upgrading access rather than reinstatement and repair.
Questions raised by participants	1. How do you factor filling up the lagoons, then getting a rain event and making a follow up flood worse? 2. You are saying 25,000-30,000 ML/day. Isn't it effectively managing flow to 30,000ML/day, so why say the proposal is for flows of 25,000ML/day? 3. Shires want money to repair rather than rebuild? That is a complete turnaround from what I've heard here before. Shires here want upgrades. 4. Any talk of more gauges for the Broken River or elsewhere down here? 5. How is Kialla Lake affected? Wasn't there in the big flood of 1993, but a lot of development now. Won't it restrict or change the flow? 6. Madowla, You-You, would there be a structure across that? 7. What about erosion issues? Especially in the You-You. 8. If you restrict flows into Waranga Basin, how are you going to fill up Waranga Basin for irrigation? 9. What about blackwater like we had in December 2010? 10. What happens if the Koi herpes virus goes ahead and kills all the carp? Going to make a big mess. 11. What would the level at McCoys Bridge be for 30,000ML/day at Shepparton? 12. Why would you want to shut everything off? *(referring to levee outlet structures)* 13. Structure on the Wakiti – offtake of bottom end – don't you still have to look at whether or not you need to let some flow through? Wakiti is a good fish breeding area. 14. How does this affect Kanyapella Basin? Kanyapella doesn't have a drop of water in it. It's a designated wildlife reserve, why aren't you trying to get water into it? Drainage channels out there have dried up. There are 19 farms out there who don't have any stock and domestic anymore. 15. What is the advantage for people here? I believe there must be a lot. Farmers are really good at whingeing and finding problems to grumble about, but there is opportunity and benefit here.
Proportion of questions that were addressed	Many, but quite a few questions where the issue has been identified but the work hasn't been done yet. Also, project covering partial solutions that intersect with other issues (e.g. floodplain management and larger floods)
Questions with incomplete answers (remaining uncertainty to document)	• reinstating the full flood protection of the lower Goulburn levees, not just to 40,000 ML/day • flood risk (during the event and making a follow up flood worse). • Interaction between the Murray and Goulburn Rivers and the extent to which this affects inundation and impacts. • Inundation mapping ground-truthing against real events (e.g. model shows You-You carrying a flow up to 40,000ML/day without breaking out, but would need to test and prove this- get out photograph and measure real events).

Comments made by participants	1. What you are suggesting will fill up all the wetlands and if we get a big rain event after, there will be nowhere for the water to go and we will get a much bigger flood. 2. Every flood is different, it goes different places on different events even though they may be a similar sized flow, all dependent on how wet the catchment is. 3. $50-60M was given to Shires to rebuild after 1993. Your public infrastructure costs don't seem a real lot to cover fixing up roads and bridges for ever more. 4. Levees don't help with the big floods. At the moment it's all a matter of waiting to see where they will break first. Would be better to design in flood protection for the big floods at the same time you are working on levees. We need high level spillways to deal with big flood flows. Specific places that will take the water when it reaches a certain level to take the pressure off the rest of the system. 5. Fish often move on the second pulse of a flow, not the first. 6. 1970's flood – really dry but Goulburn channel was running full (supplying water to Murray before Dartmouth dam was built), and then the rain started and there was the big flood. Lots of damage. 7. River at Barmah can run backwards. 8. Councillor comment - Concern that there is $200M over seven constraint regions. Of the $140M, $24M for public infrastructure is a relatively small figure. This won't work for Moira Shire. Businesses are going to be impacted and isolated over these 7 day flow events, this causes too much interruption. Infrastructure needs to be improved to keep access open, so businesses can stay open. $24M not enough to keep access open, we won't entertain remedial maintenance works as the solution. 9. Creeks need to be open, shouldn't be shutting them off. 10. Looking at the benefits, the positive here is that the environment would be putting in to pay for things with their flows. However my biggest concern is that there is only $200M available across the whole basin for this and 6 other areas. It won't go far. 11. If we had more gauging and real time flow monitoring and new tools (guarantee BOM will get it wrong) then these will be important in taking some of the risk out of all of this. 12. There is some irony in taking water off farmers and then flooding them with it afterwards.

Seymour – 22 January 2016

Seymour GOTAFE, Wallis Street

Event attendance	**28** (23 first session, 5 second session)
Observations	Summary of content
Key points raised to be included in community feedback on the proposal	1. Not acceptable to flood land.
Questions raised by participants	1. River rising and falling a lot now, very frustrating. Will this project make that worse? 2. Why can't you pipe water from Eildon to the lower Goulburn? 3. Who is paying to compensation, and how long will the payments last? 4. Who pays if a levee breaks? 5. What is the minimum volume required in Lake Eildon before the environment and Melbourne can use water? 6. Does $140million cost include the cost of water? 7. Are the CMA doing cost/benefit and making the decision? 8. What is the decision to be made based on the business case? 9. What are the impacts of more severe weather under climate change? 10. Does proposal include costing for benefits? What are the benefits of improved environment on businesses? 11. Do flows down the Goulburn River have benefits in the Murray River? 12. Cattle impact seen as a problem in the upper river, are they a problem in the lower Goulburn? 13. If do this, how much environmental entitlement would be used?
Proportion of questions that were addressed	Most.
Questions with incomplete answers (remaining uncertainty to document)	
Comments made by participants	1. Not acceptable to flood land. 2. In costing assumptions – need to determine what landowners do in current flows.